

**Further Observations on the *Chrysochloridæ*.**

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In a recent paper entitled "A Contribution to the Knowledge of the Cape Golden Moles." I endeavoured to give a systematic review of the genus *Chrysochloris* so far as it was known to occur in South Africa, and I pointed out how imperfect our knowledge still is as regards some of the imperfectly described species of the old writers, and even as regards the distribution of some of the well-known forms. Gradually, however, more and more is becoming known, and the most recent important advances we owe to Dr. Gunning, of the Transvaal Museum, through whom a new species has been found and, what is perhaps of equal importance, the re-discovery apparently of *Chrysochloris albirostris* of Wagner.

**CHRYSOCHLORIS GUNNINGI, N. SP.**

Until recently the only specimens of *Chrysochloris* known to have been found in the Transvaal were obtained at Wakkerstroom, just over the Natal Border, and they belonged to a Natal variety of *C. hottentota* which I had named *C. h. longiceps*. In December, 1907, Dr. Gunning obtained from Woodbush Hill, Zoutpansberg, a specimen of a Golden Mole which he sent me for determination.

As might be expected from its occurrence so far from the habitat of others of the genus, it has proved to belong to a very distinct new species, which I have much pleasure in naming after Dr. Gunning.

In general appearance this little mole is not unlike the typical reddish forms of *C. hottentota*. The back is dark reddish-brown, but more lustrous than in *C. hottentota*. The abdomen is lighter reddish-brown; the breast and throat still lighter. The cheeks are yellowish-brown, owing to the deep fur being yellow. There are no white hairs anywhere on the face.

In the front foot the 3rd claw is much slenderer than is ever the case in *C. hottentota*, but the relative lengths of the claws are fairly similar. As the skin had been dried, no satisfactory description can be given of the nose pad, but it does not seem to differ much from that of *C. hottentota*.

The length of the specimen, measured in the flesh, was 126 mm. and the hind foot 15 mm. The sex, female.

The specimen was captured on 7th December, 1907.

Unfortunately the skull has been badly injured, but as the tooth-bearing portion had been left in the skin, enough remains to remove all doubt as to the distinctness of the species. The teeth are 40 in number, thus differing from *C. hottentota*. But apart from number they differ greatly in character. The incisors present no striking characteristics, though the second is not so high as in the *C. hottentota*.

The canine, though small, has a distinct posterior small cusp. The 1st premolar is much larger than is ever the case in any variety of *C. hottentota*, even than in the gigantic *C. h. longiceps*, and it is distinctly molariform.

The other two premolars are shorter antero-posteriorly than in *C. hottentota* but much wider, and resemble more those of *C. asiatica*. The lower molars differ from those of *C. hottentota* and *C. sclateri* in having the posterior talons rudimentary.

In the last two premolars there is a minute talon, in the first molar only a rudiment, and in the last two molars no trace. The following are some of the chief measurements: Dental series 12 mm. (*cf.* *C. hottentota* 8·7–11, *C. sclateri* 9·6, *C. asiatica* 10, *C. villosa* 13·3); molar series 6·7 mm. (*cf.* *C. hottentota* 5–6·6, *C. sclateri* 5·6, *C. asiatica* 6, *C. villosa* 7·7); palatal width 7·4 mm. (*cf.* *C. hottentota* 7·5–8·8, *C. sclateri* 7·7, *C. asiatica* 8·5, *C. villosa* 10).

It will thus be seen that though the jaw is long it is relatively narrower than in any other species. Between the last premolars in *C. hottentota* there is a space of from 4 to 4·5 mm.; in *C. gunningi*, though the jaw is longer, the space is only 3·2.

*Chrysochloris gunningi* as regards its teeth comes nearer to *C. asiatica* than to *C. hottentota*, and yet as regards the skull it is almost certain to bear a greater resemblance to the latter. But until the skull is completely known, the nearest relationship cannot be determined and all that can at present be affirmed is that it is not a near ally of any of the previously known species. The Type specimen, collected by Mr. F. Vaughan Kirby, is in the Transvaal Museum.

#### CHRYSOCHLORIS HOTTENTOTA ALBIROSTRIS, WAGNER.

Many years ago Wagner described a mole from "Kaffraria" under the name of *Chrysochloris albirostris*, and gave what must be regarded as a very poor figure of the

animal. The description and figure are so unsatisfactory that no one has since been able to re-identify the mole with certainty. Dobson believes it to be a variety of *C. rutilans* (= *C. hottentota*), and Thomas has expressed the opinion that it may prove distinct. In my recent paper on the Golden Moles, I agreed in the main with both Dobson and Thomas that Wagner's mole would prove to be a distinct sub-species of *C. hottentota*.

Recently Dr. Gunning has obtained two specimens of *Chrysochloris* from Ngqeleni, West Pondoland, which I think we may conclude are Wagner's *C. albirostris*.

Specimen A has the back from the top of the head backwards of a very dark brown, nearly black. It is darker than the usual dark specimens of *C. hottentota*, but not so distinctly black as *C. h. corriæ*. The sides are dark reddish brown and the abdomen rather lighter. The under fur is slaty grey on the body sides and abdomen. The eye region has the white spot more distinctly marked than in other varieties of *C. hottentota* and the white hairs are so numerous in front of this spot that the whole of the cheeks and pre-frontal region are light grey. Immediately above the nasal pad the white and dark hairs are about equally mixed, but on the cheeks the white greatly predominate. The frontal region is dark grey. The measurements given of the specimens are H. and b 113 mm., hind foot 11. It was captured on 17th January, 1908, by Mr. H. H. Swinny. The sex is not given. The skull shows that the specimen is a very young adult.

The following are the chief measurements of the skull:— Greatest length 26, breadth 16, height 12·3, orbital region 8·3, dental series 10·2, molar series 5·6, palatal width 8.

Specimen B differs from the other in having the back of a lighter brown, in colour exactly agreeing with the typical dark specimens of *C. hottentota*. The fur of the face is slightly darker grey.

This specimen, of which the measurements are 115 and 11, is as seen by the skull scarcely full grown.

The skulls show that this form is only a sub-species of *C. hottentota*.

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